

I) MULTIPLE CHOICE QUESTIONS

1- Which of the following factors participates in the formation of inflammatory fluid exudate:

- a) Increased intravascular osmotic pressure
- b) Increased vascular permeability
- c) Vasoconstriction
- d) Decreased osmotic pressure of the interstitial tissue
- e) All of the above.

2- Which of the following is an effect of chemical mediators :

- a) Increased vascular permeability.
- b) Chemotaxis
- c) Fever
- d) All of the above
- e) None of the above

3- Which of the following is true about vascular stasis in acute inflammation:

- a) It is mainly induced by vasoconstriction.
- b) It mainly occurs after emigration of leucocytes.
- c) It may lead to thrombosis
- d) All of the above
- e) None of the above

4- Which of the following statements is true about the cellular phase of acute inflammation:

- a) Opsonins play an important role in the process of pavementing
- b) Neutrophils and monocytes emigrate at the same time.
- c) Emigration of leucocytes is followed by leucopenia
- d) Giant cells are formed by fusion of neutrophils
- e) Bacilli are more chemotactic to macrophages , while cocci mainly attract neutrophils

5- Which of the following is true about fibrin:

- a) Deposition of fibrin in inflammatory conditions is known as fibrosis
- b) Fibrin plays important functions in inflammation & repair
- c) Cellulitis is characterized by excess fibrin deposition
- d) All of the above
- e) None of the above

6- Which of the following is true about chemotaxis:

- a) This is diversion of leucocytes out of the axial column of blood ,prior to their emigration.
- b) Typhoid bacilli are strongly chemotactic to neutrophils.
- c) Complement components are important chemotactic factors.
- d) All of the above
- e) None of the above

7- Which of the following statements is true about giant cells in inflammation:

- a) They are most commonly seen in suppurative inflammation.
- b) They have a weaker phagocytic capacity than macrophages.
- c) They are more commonly seen in granulomas than in chronic nonspecific inflammation
- d) All of the above
- e) None of the above

VISIT...

LANZAROTE
Caliente.COM

8- Which of the following statements is true about abscess:

- a) It is most commonly caused by Streptococcal infection.
- b) Wall of the abscess is characterized by numerous lymphocytes, plasma cells & giant cells
- c) Lung abscess may lead to gangrene.
- d) Brain abscess is precancerous
- e) All of the above

9- All of the following are features of cellulitis except:

- a) Caused by Streptococcus hemolyticus infection.
- b) Pus is thin and sanguinous.
- c) The main inflammatory cells are lymphocytes and plasma cells.
- d) It mainly occurs in loose tissues.
- e) It is most common in diabetics.

10- Which of the following statements is true for neutrophils:

- a) They are the first cells to emigrate in acute inflammation
- b) They are the most predominant cells in chronic inflammation.
- c) The most important chemotactic factors for neutrophils are derived from bacilli.
- d) They efficiently engulf foreign bodies.
- e) They can give rise to giant cells.

11- Which of the following statements is not true for macrophages:

- a) They are derived from blood monocytes
- b) They produce some cytokines such as TNF and interleukins
- c) They produce growth factors involved in the process of healing
- d) They are involved in remodeling of scar by secreting collagenases
- e) Their capacity to engulf tubercle bacilli and necrotic cells is less than that of neutrophils.

12- Which of the following statements is true for chronic inflammation:

- a) Giant cells are common, particularly in granulomas.
- b) Chronic inflammation is always preceded by acute inflammation
- c) Lymphocytes are rarely seen in chronic inflammation.
- d) The course of most chronic inflammations is resolution.
- e) All of the above.

13- Which of the following is not true for epithelioid cells

- a) They are derived from epithelial cells.
- b) They are altered macrophages
- c) They can be seen in case of sarcoidosis.
- d) They can give rise to giant cells
- e) They are more commonly seen in proliferative than exudative tissue reaction of tuberculosis

14- Which of the following granulomatous lesions may be associated with marked necrosis:

- a) Silicosis
- b) Foreign body granuloma
- c) Sarcoidosis
- d) Tuberculosis.
- e) Crohn's disease

15-Which of the following features characterizes serofibrinous inflammation:

- a) It most commonly affects the pleura & peritoneum
- b) It may affect the oral mucosa in case of diphtheria
- c) It is characterized by excess mucous production
- d) It is characterized by the most efficient phagocytosis among all types of inflammation
- e) All of the above

16-Which one of the following is not an acceptable characteristic of granuloma:

- a) It predominantly consists of a nodular collection of macrophages.
- b) Epithelioid cells are common.
- c) Giant cells may develop.
- d) Neutrophils are always present
- e) Bilharziasis may be associated with granulomas.

17-Which of the following is not a feature of acute inflammation:

- a) Persistent vasoconstriction.
- b) Vasodilatation.
- c) Increased vascular permeability.
- d) Vascular stasis.
- e) Emigration of leucocytes.

18-Which of the following is not a function of fibrin:

- a) Opsonization
- b) Sealing of bleeding vessels
- c) Facilitation of movement of inflammatory cells
- d) Localization of inflammatory fields
- f) Facilitation of movement of fibroblasts during repair

19-Which of the following cells engulf fibrin:

- a) Neutrophils
- b) Eosinophils
- c) Macrophages
- d) Lymphocytes
- f) Plasma cells

20-Which of the following is true about pseudomembranous inflammation :

- a) A severe type of suppurative inflammation affecting mucus membranes.
- b) Accompanied by excessive mucus production.
- c) Characterized by an exudate rich in eosinophils.
- d) All of the above
- e) None of the above.

21-Which of the following is true about activation of phospholipase C of phagocytic cells:

- a) It provides the phagocytic cells with phospholipids.
- b) It provides the phagocytic cells with energy
- c) It hydrolyses the release of calcium and enhances cell mobility.
- d) All of the above.
- e) None of the above.

22-Which of the following statements is true:

- a) Platelet derived growth factor is produced by platelets and stored in macrophages.
- b) Transforming growth factor B has a growth inhibition action.
- c) Growth factors are essential to stimulate the proliferation of skeletal muscle cells.
- d) All of the above.
- e) None of the above.

23-Which of the following statements is true:

- a) Hepatic bilharziasis disturbs the lobular framework and leads to cirrhosis.
- b) Wound contraction by myofibroblasts is an important feature of 1st union of wounds.
- c) Type II collagen is the most important type of collagen deposited in wound healing.
- d) All of the above
- e) None of the above.

24-If the following events were placed in their most probable order of occurrence following a surgically stitched skin wound, which would come fourth?:

- a) Blood clot formation.
- b) Growth of granulation tissue.
- c) Epidermal regeneration.
- d) Deposition of collagen type I
- e) Deposition of collagen type III

25-Which of the following statements is true about permanent cells:

- a) Injury of these cells may be sometimes followed by their regeneration.
- b) They can give rise to tumors
- c) Fibroblasts are examples of permanent cells.
- d) All of the above
- e) None of the above

26-Which of the following cells is labile:

- a) Liver cells .
- b) Lymphoid cells
- c) Fibroblasts
- d) Nerve cells
- e) None of the above

27-Which of the following factors may adversely affect healing of bone:

- a) Glucocorticoid therapy
- b) Old age
- c) Soft tissue interposition between the fracture ends.
- d) All of the above
- e) None of the above.

28-Which of the following statements is true about peripheral nerve injury:

- a) Following injury of a peripheral nerve, the nerve cells die & healing occurs by gliosis
- b) Schwann cells are sensitive to injury and are therefore completely lost after nerve injury.
- c) The earliest stage in healing of peripheral nerve injury is myelin deposition.
- d) Complete regeneration is possible in optimal conditions
- e) Healing of nerves is always accompanied by development of traumatic neuroma.

29-Which of the following statements is true about healing of skin wounds.

- a)Epidermal regeneration occurs in primary union, but not in secondary union
- b)Wound contraction mainly occurs in secondary union
- c)Collagens deposited during the process of healing are mainly types II & IV
- d)All of the above
- e)None of the above

30-Which of the following injuries can heal by complete regeneration:

- a)Peripheral nerve injury
- b)Acute viral hepatitis
- c)Bone fracture
- d)Epidermal injury
- e)All of the above

31-Which of the following statements is true for hepatic steatosis :

- a)May be caused by alcohol intake.
- b)May occur in cases of hepatitis C.
- c)May be followed by cirrhosis.
- d)All of the above.
- e)None of the above

32-The following are features of apoptosis except:

- a)It is always caused by irritants such as anoxia, bacterial infections and alcohol.
- b)It is characterized by fragmentation of nuclear DNA.
- c)It is characterized by formation of cell membrane blebs.
- d)It is characterized by transformation of the affected cell into apoptotic bodies.
- e)Phagocytosis of the apoptotic bodies is common.

33-Caseous necrosis is characterized by all of the following features except:

- a)Cheese-like material.
- b)Commonly seen in tuberculous lesions.
- c)The structural outlines of the necrotic cells are preserved.
- d)It represents partially liquified coagulative necrosis.
- e)Microscopically appears as amorphous eosinophilic granular debris.

34-All of the following changes can be seen in necrotic cells except::

- a)Pyknosis
- b)Mitosis
- c>Karyorrhexis
- d>Karyolysis
- e>Cytomegaly

35-Which of the following conditions is characterized by liquefactive necrosis:

- a)Lung infarction
- b>Cerebral infarction
- c>Pulmonary tuberculosis
- d)All of the above
- e)None of the above

36-Which of the following statements is true for dystrophic calcification :

- a)It is due to hypercalcemia.
- b)It affects healthy tissues.
- c)It can be seen in tuberculosis.
- d)It commonly occurs in teeth and bone
- e)It is more common in arterial than venous thrombi

37- Which of the following statements is true for metastatic calcification

- a)It may occur in cases of hyperparathyroidism.
- b)It is seen in metastatic tumors.
- c)Calcified thrombi represent a type of metastatic calcification
- d)All of the above
- e)None of the above

38-Which of the following statements is not true for amyloidosis:

- a)Amyloid is predominantly a fibril protein.
- b)Macrophages may play an important role in systemic amyloidosis.
- c)Sudan III and osmic acid can specifically stain amyloid
- d)Amyloid is mainly deposited within the walls of small blood vessels.
- e)Amyloidosis may lead to Addison's disease.

39-The following are causes of systemic amyloidosis except:

- a)Acute suppurations.
- b)Tuberculosis.
- c)ulcerative colitis.
- d)Rheumatoid arthritis.
- e)Multiple myeloma.

40-Which of the following types of amyloid affection produces the most serious effects:

- a)Amyloid spleen
- b)Hepatic amyloidosis
- c)Renal amyloidosis
- d)Amyloid diffuse spleen
- e)Cutaneous amyloidosis.

41-In all of the following conditions the amyloid fibril protein is AA except:

- a)Ulcerative colitis
- b)Multiple myeloma
- c)Tuberculosis
- d)Chronic lung abscess
- e)Hodgkin's disease.

42-Which of the following is true about amyloid deposited within medullary carcinoma of thyroid:

- a)The amyloid protein is secreted by macrophages within the thyroid gland.
- b)The amyloid protein is produced by tumor cells .
- c)It may be accompanied by renal or hepatic amyloidosis.
- d)The amyloid protein is AL
- e) None of the above

43-Which of the following conditions may be accompanied by abnormal melanin deposition:

- a) Multiple neurofibromatosis
- b) Brown atrophy of the heart
- c) Melanosis coli
- d) Leukoderma
- e) All of the above

44-Which of the following lesions may exhibit cellular or extracellular hyalinosis:

- a) Uterine leiomyoma
- b) Alcoholic hepatitis
- c) Keloid
- d) Chronic glomerulonephritis
- e) All of the above

45-Hyperplasia is characterized by all of the following except:

- a) It is always accompanied by dysplasia.
- b) It may be caused by hormonal abnormalities.
- c) It is sometimes precancerous.
- d) Growth factors may be involved in the mechanism of hyperplasia.
- e) It may affect the bone marrow following hemorrhage.

46-Which of the following features is true for squamous metaplasia

- a) It may be related to vitamin A deficiency.
- b) It may be followed by leukoplakia.
- c) It is a common feature of bilharzial cystitis.
- d) It predisposes to squamous cell carcinoma.
- e) All of the above

47-Which of the following statements is true for dysplasia:

- a) It is precancerous ✓
- b) It is common in case of bilharzial cystitis
- c) It may affect the cervical mucosa in chronic cervicitis. ✓
- d) All of the above. ✓
- e) None of the above.

Tumour

48-Which of the following statements is true for carcinoma insitu:

- a) It may appear grossly as an irregular ulcer with everted edges.
- b) It is characterized by cellular atypia accompanied by basement membrane invasion.
- c) It predisposes to the development of fibrosarcoma.
- d) All of the above.
- e) None of the above.

49-Which of the following statements is true about the spread of malignant tumors:

- a) Basal cell carcinoma commonly spreads by lymphatics and rarely by blood.
- b) Cathepsin B and collagenase type IV are involved in the mechanism of spread.
- c) Cartilage and periosteum can be easily penetrated by malignant cells.
- d) All of the above
- e) None of the above.

50-Which of the following statements is true for sarcomas:

- a) Malignant mesenchymal tumors.
- b) Much less common than carcinoma
- c) Distant spread is predominantly by the hematogenous route..
- d) All of the above
- e) None of the above.

51-Which of the following statements is true for locally malignant tumors:

- a) They lack the microscopic features of malignancy.
- b) Rodent ulcer and giant cell tumor of bone are common examples
- c) They are commonly capsulated..
- d) All of the above.
- e) None of the above.

52-Which of the following benign tumors does not affect skin and subcutaneous tissues:

- a) Villous papilloma.
- b) Lipoma.
- c) Leiomyoma.
- d) Hemangioma
- e) All of the above.

53-Which of the following statements is true for squamous cell carcinoma:

- a) It can affect the oesophagus.✓
- b) The differentiated types are characterized by cell nest formation.✓
- c) It can spread by local and distant routes.✓
- d) It may affect the skin due to prolonged exposure to sun.✓
- e) All of the above.

54-Which of the following statements is true for transitional cell carcinoma:

- a) It may occur in papillary and non-papillary forms with better prognosis for the papillary.
- b) It may occur in the skin on top of leukoplakia
- c) It commonly spreads by the transperitoneal route.
- d) Distant spread occurs early by blood.
- e) All of the above.

55-Which of the following statements is true for signet ring cell carcinoma:

- a) It commonly occurs in the gastrointestinal tract.
- c) It is a locally malignant tumor.
- d) It has a better prognosis than most other types of carcinoma.
- e) Tumor cells are positively stained by Sudan III or Osmic acid
- e) All of the above.

56-Which of the following statements is true for osteoid osteoma:

- a) It occurs most commonly in the skull.
- b) Its size does not usually exceed 4 cm in diameter.
- c) It very commonly changes into osteosarcoma.
- d) All of the above
- e) None of the above.

57-Which of the following statements is true for leiomyoma:

- a) It is a benign tumor of skeletal muscle.
- b) It commonly arises in females after the menopause.
- c) It commonly changes into leiomyosarcoma.
- d) All of the above
- e) None of the above

58-Which of the following tumors may occur in the heart:

- a) Rhabdomyosarcoma. ✓
- b) Myxoma. ✓
- c) Rhabdomyoma. ✓
- d) All of the above.
- e) None of the above.

59-Which of the following statements is true for osteochondroma:

- a) It always arises above the age of 20 years.
- b) It grossly appears as a hemispherical mass arising from the skull.
- c) Multiple tumors may occur as a hereditary autosomal dominant disease.
- d) All of the above
- e) None of the above.

60-Which of the following statements is true about lipoma and leiomyoma:

- a) They are very common benign tumors.
- b) Malignant transformation is rare.
- c) The skin (including dermis and subcutaneous tissue) may be a site for both tumors.
- d) All of the above.
- e) None of the above

61-Which of the following statements is true for osteoblastoma:

- a) It is a malignant tumor of bone.
- b) It is histologically identical to osteoid osteoma.
- c) Short bones are the most common site.
- d) All of the above
- e) None of the above

62-Which of the following statements is true for neoplasia:

- a) All neoplasms can spread by lymphatics & blood.
- b) Neoplasms can arise from labile & stable cells but not from permanent cells.
- c) Neoplasms are reversible if their evoking stimuli are stopped.
- d) All of the above
- e) None of the above

63-All of the following neoplasms are benign except:

- a) Nodular melanoma. ✓
- b) Dermoid cyst
- c) Rhabdomyoma.
- d) Osteochondroma ✓
- e) Villous papilloma ✓

64-Which of the following statements is true for acquired nevi:

- a)They are rare skin lesions caused by melanocyte proliferation.
- b)They very commonly undergo malignant transformation.
- c)They exist at birth and may be very large.
- d)All of the above
- e)None of the above.

65-Which of the following statements is true for lentigo maligna:

- a)It is considered a type of melanoma insitu.
- b)The most common presentation is a pigmented macule in the face.
- c)It mainly occurs in the elderly and may become invasive after many years
- d)All of the above
- e)None of the above

66-Which of the following statements is true for nodular melanoma: ↓ ✓

- a)It is a benign melanocytic tumor.
- b)It is less aggressive than superficial spreading melanoma.
- c)It predominantly grows in a radial fashion
- d)All of the above
- e)None of the above

67-Which of the following tumors is benign:

- a)Dermoid cyst.
- b)Immature teratoma.
- c)Nephroblastoma
- d)All of the above
- e)None of the above

68-Which of the following statements is true for teratoma:

- a)It is a composite tumor that may arise from totipotent cells.
- b)The most common site is the ovary.
- c)It may arise in the anterior mediastinum or retroperitoneum.
- d)All of the above
- e)None of the above

69-Which of the following statements is true for ovarian dermoid cyst:

- a)It is a post operative complication .
- b)It is a malignant embryonic tumor.
- c)It is a cystic form of mature teratoma.
- d)It may contain mature organs as kidney and eye
- e)None of the above.

70-Which of the following statements is true for hamartoma:

- a)It is a benign bone tumor commonly affecting the humerus.
- b)It is a benign tumor that arises in the breast around the age of 30 years.
- c)It is a developmental tumor-like malformation.
- d)It is considered a type of teratoma.
- e)It is an embryonic tumor

71-Which of the following statements is not true about distant metastases:

- ✓ a) Spleen is among the most commonly affected sites.
- b) Histology of metastatic tumors usually resembles that of the primary tumor. ✓
- c) Omental metastases are commonly accompanied by hemorrhagic ascites ✓
- d) Skeletal muscles and intestine are rarely affected by metastases. ✓
- e) Lungs and liver are common sites for metastases. ✓

72--Which of the following statements is not true about bone metastases:

- ✓ a) It is common in breast cancer.
- b) It may be osteolytic or osteosclerotic. ✓
- c) It may lead to pathological fracture. ✓
- ✓ d) It is a common cause of polycythaemia
- e) It is more common in ends of long bones than in their shafts

73-All of the following tumors are invasive except:

- ✓ a) Rodent ulcer
- ✓ b) Osteoblastoma > not malignant
- c) Hepatoblastoma
- d) Immature teratoma
- e) Nodular melanoma

74-Which of the following factors can activate the development of oncogenes:

- ✓ a) Chromosomal translocations
- b) Point mutations
- c) Gene amplification
- ✓ d) All of the above
- e) None of the above

75-Which of the following statements is true about carcinoma in situ :

- ✓ a) It is a locally malignant tumor characterized by direct spread without distant spread
- ✓ b) It is a non-invasive malignant change within the epithelium, detected microscopically
- c) It is a microscopic malignant intraepithelial change that invades the basement membrane
- d) It is a secondary tumor caused by distant spread of carcinoma
- e) It leads to cachexia

76-Which of the following is a serum marker of hepatic carcinoma

- a) CEA
- ✓ b) S100 protein
- ✓ c) Alpha fetoprotein
- d) All of the above
- e) None of the above

77-Which of the following statements is true:

- ✓ a) Liver cirrhosis is precancerous.
- b) Cancer may have genetic predisposition
- c) Aniline dye is a chemical carcinogen related to bladder cancer.
- ✓ d) Asbestos is a carcinogen causing mesothelioma.
- e) All of the above

79--Which of the following statements is true for hamartoma:

- a)It is a benign bone tumor commonly affecting the humerus.
- b)It is a benign tumor that arises in the breast around the age of 30 years.
- c)It is a developmental tumor-like malformation.
- d)It is considered a type of teratoma.
- e)None of the above.

80-Which of the following organs is most commonly affected by metastases in case of gastric carcinoma :

- a)Pancreas
- b)Liver
- c)Intestine
- d)Brain
- e)Bones

81-Which of the following malignant tumors is not commonly associated with lymph node metastases:

- a)Giant cell tumor of bone
- b>Fibrosarcoma
- c>Osteosarcoma
- d)Leiomyosarcoma
- e)All of the above.

82-Which of the following statements is not true about irradiation:

- a)It is useful in treatment of germ cell tumors of testis and ovary
- b)It can cause tumors by acting as a physical carcinogen
- c)It is ideal for treatment of sarcomas
- d)It can lead to leucopenia or leukemia
- e)It may lead to vascular thrombosis

83-Which of the following statements is not true for thrombosis:

- a)It predominantly consists of a network of fibrin & blood cells without platelets.
- b)It is commonly caused by endothelial injury.
- c)It may be a complication of varicose veins.
- d)It is more common in females using oral contraceptives than in nonuser females.
- e)All of the above.

84) Which of the following statements is true about endothelial injury:

- a)It enhances thrombosis by exposure of subendothelial collagen to which platelets stick
- b)It enhances thrombosis by release of thrombotic factors as factor VIII
- c)It may be due to trauma
- d)All of the above
- e)None of the above

85-Which of the following conditions can lead to thrombosis:

- a)Polycythaemia
- b)Tissue irradiation
- c)Puerperal sepsis
- d)All of the above
- e)None of the above

86-Which of the following is true about thrombophlebitis

- a)It is always septic.
- b)It may affect inflamed arteries.
- c)It may lead to pyemia.
- d)All of the above
- e)None of the above.

87-Which of the following statements is true about vascular thrombi.

- a)All thrombi are occluding
- b)All thrombi are septic
- c)All thrombi undergo embolization
- d)All of the above.
- e)None of the above

88-Which of the following statements is true about phlebothrombosis:

- a)It may lead to oedema.
- b)It is due to inflammation of the affected vein as in cases of cellulitis.
- c)It is non-occlusive venous thrombosis; that does not lead to a propagating thrombus
- d)All of the above
- e)None of the above.

89-Which of the following statements is true about the fate of thrombosis:

- a)The effects of thrombosis may be ameliorated due to thrombus lysis or recanalization
- b)Thrombus may become calcified.
- c)Embolism may follow thrombosis
- d)Thrombosis may lead to ischemia.
- e)All of the above.

90-Which of the following statements is true about pulmonary embolism.

- a)Lung infarction always develops in these cases
- b)Emboli may be derived from left atrial thrombi.
- c)It may occur after surgery due to thrombosis of leg veins.
- d)All of the above
- e)None of the above

91-Which of the following statements is true for amniotic fluid embolism:

- a)It is most common in cases of fetal anomalies
- b)It occurs during labour
- c)It is often a mild condition causing no serious effects
- d)All of the above
- e)None of the above.

92-Which of the following statements is true about gas embolism:

- a)It is the most common complication of gas gangrene
- b)It may occur in divers if they are decompressed too quickly
- c)It may be caused by penetrating injuries of the abdomen.
- d)All of the above
- e)None of the above

93-Which of the following statements is true about infarction:

- a)It rarely affects the heart due to excellent coronary artery collateral circulation .
- b)Renal infarction is a liquefactive type necrosis
- c)All infarcts are centrally located within the affected organ
- d)All of the above
- e)None of the above

94-Which of the following types of infarction may be followed by gangrene:

- a)Intestinal infarction
- b)Cerebral infarction
- c)Myocardial infarction
- d)All of the above
- e)None of the above

95-Which of the following statements is true for senile gangrene:

- a)It is characterized by marked rapid putrefaction.
- b)It most commonly affects the upper limbs due to venous occlusion
- c)It is characterized by a prominent line of demarcation
- d)All of the above
- e)None of the above

96-Which of the following statements is true for gangrene caused by intussusception

- a)It affects the intestine and represents a type of wet gangrene.
- b)It is characterized by a prominent line of demarcation.
- c)It is accompanied by insignificant toxemia.
- d)All of the above
- e)None of the above

97-Which of the following statements is true about phlebothrombosis:

- a)It may lead to oedema.
- b)It is due to inflammation of the affected vein as in cases of cellulitis.
- c)It does not lead to a propagating thrombus
- d)All of the above
- e)None of the above.

98-Which of the following statements is true for gas gangrene:

- a)It is caused by contamination of superficial wounds with *Clostridium tetani*
- b)It is characterized by mild toxemia caused by bacterial endotoxins.
- c)It is characterized by prominent lines of demarcation and separation
- d)All of the above
- e)None of the above

99-Which of the following statements is true for heart failure cells:

- a)They are pulmonary macrophages engulfing hemosiderin in cases of lung congestion
- b)They are macrophages engulfing necrotic material in case of myocardial infarction.
- c)They are dead myocardial cells caused by heart failure .
- d)They are stem cells that regenerate the myocardium in case of heart failure
- e)None of the above

100-Which of the following statements is true for chronic general venous congestion

- a)It is caused by right sided heart failure.
- b)It leads to nutmeg appearance of the liver.
- c)It is characterized by generalized oedema.
- d)All of the above
- e)None of the above.

101-Which of the following factors does not lead to oedema.

- a)Increased plasma colloid osmotic pressure
- b)Increased tissue osmotic pressure
- c)Increased capillary permeability
- d)Increased capillary hydrostatic pressure.
- e)Malignant permeation of lymphatics

102-The following types of oedema are pitting except:

- a)Oedema due to venous thrombosis
- b)Oedema caused by filariasis
- c)Cardiac oedema
- d)Nutritional oedema
- e)Nephrotic oedema

103-The following statements are true for shock except:

- a)Cerebral infarction may occur
- b)The blood pressure is elevated
- c)The lungs may show diffuse alveolar damage
- d)Loss of adrenal lipids is an important feature.
- e)Shock may lead to acute renal failure .

104-Which of the following statements is true for pyemic abscess:

- a)A single abscess
- b)Centrally located within the affected organ
- c)May develop in cases of acute infective endocarditis.
- d)All of the above
- e)None of the above.

105-Which of the following statements is true for septicemia:

- a)It is a common complication of tuberculosis due to blood spread.
- b)It is a common cause of subacute infective endocarditis
- c)Acute splenomegaly is a common feature
- d)All of the above
- e)None of the above

106-Which of the following statements is true for bacteraemia

- a)It commonly leads to acute adrenal insufficiency
- b)It may follow tooth extraction
- c)It may lead to development of pyemic abscesses
- d)All of the above
- e)None of the above

107-All of the following is true about tubercle bacilli except:

- a)They secrete powerful exotoxins .
- b)They have a lipid capsule.
- c)They cannot be digested by neutrophils.
- d)They contain a protein that causes hypersensitivity reactions.
- e)They can contaminate dust, resist drying and remain viable for long periods.

108-Which of the following is not true for exudative tissue reaction in tuberculosis:

- a)It most commonly affects the serous membranes.
- b)It is characterized by outpouring of fluid exudate containing fibrinogen.
- c)It is characterized by cellular exudate poor in epithelioid cells & Langhan's giant cells
- d)It is the usual type seen in primary pulmonary tuberculous complex.
- e)The exudate is often rich in lymphocytes.

109-Which of the following statements is true for Lupus vulgaris

- a)It is an autoimmune collagen disease
- b)It is a form of cutaneous tuberculosis.
- c)It most commonly affects the skin of the lower limbs.
- d)It is commonly associated with renal failure
- e)None of the above

110-Which of the following statements is true for primary intestinal tuberculosis:

- a)It is caused by ingestion of bovine or human tubercle bacilli
- b)It is mainly seen in adults.
- c)Mesenteric lymph node affection is minimal
- d)All of the above
- e)None of the above

111-Intestinal tuberculous ulcers are characterized by all of the following except:

- a)They have ragged undermined edges.
- b)They are longitudinally arranged in the ileum.
- c)They are mainly seen in cases of secondary intestinal tuberculosis.
- d)They may be accompanied by intestinal fistulae
- e)They may be complicated by peritonitis.

112-Which of the following is true about angiogenesis:

- a)It is an important feature of granulation tissue
- b)It occurs in tumors in response to an angiogenesis factor
- c)It does not occur in tubercles and this participates in the mechanism of caseation.
- d)All of the above
- e)None of the above

113-Which of the following is true about chronic fibrocaceous pulmonary tuberculosis

- a)It is a form of secondary pulmonary tuberculosis
- b)It is characterized by cavitary lesions; mostly apical
- c)It may be complicated by secondary intestinal tuberculosis
- d)It may be complicated by systemic amyloidosis
- e)All of the above

114-Which of the following is true about tuberculous lymphadenitis:

- a)It is more common in secondary than primary tuberculosis.
- b)It may be manifested by lymph node matting and cold abscess formation.
- c)It most commonly affects the inguinal lymph nodes.
- d)The lesions are always localized with no subsequent spread of the disease.
- e)All of the above

115-Which of the following is true about tuberculous peritonitis

- a)It may present with serous effusion.
- b)It may be present with frozen abdomen.
- c)It may lead to intestinal obstruction
- d)It may be a complication of primary or secondary intestinal tuberculosis
- e)All of the above.

116-Which of the following is true about tuberculous epididymitis:

- a)It may be due to blood-borne infection
- b)It may lead to a posterior scrotal sinus
- c)Bilateral cases may lead to obstructive azoospermia.
- d)It may be accompanied by tuberculous orchitis
- e)All of the above

117-The following are characters of C.S.F in case of tuberculous meningitis except:

- a)High CSF tension.
- b)High sugar and chloride content
- c)High protein content
- d)A large number of lymphocytes
- e)Culture for mycobacteria may be positive.

118-Which of the following factors is responsible for paraplegia in Pott's disease:

- a)Ischemic injury of spinal cord due to end arteritis
- b>Traumatic injury of spinal cord due to vertebral fracture
- c)Compression of spinal cord by caseous collections
- d)Vascular thrombosis
- e)All of the above

119-Which of the following is not a feature of tuberculous arthritis

- a)It most commonly affects the hip and knee joints
- b)It most commonly affects young ages before the age of 25 years.
- c)It may be accompanied by joint effusion.
- d)The articular cartilage is not affected .
- e)Fibrous ankylosis may occur.

120-Which of the following diseases may be accompanied by sinus formation:

- a)Actinomycosis
- b)Carbuncle
- c)Mycetoma
- d)Tuberculous arthritis
- e)All of the above

121-All of the following diseases may lead to formation of fistulae except:

- a) Perianal abscess
- b) Intestinal tuberculosis
- c) Bilharzial cystitis
- d) Lupus vulgaris
- e) Urinary bladder carcinoma

122-Which of the following diseases may lead to urinary bladder ulceration:

- a) Bilharzial cystitis
- b) Tuberculous cystitis
- c) Transitional cell carcinoma
- d) Squamous cell carcinoma
- e) All of the above

123-Which of the following is true about Pott's disease:

- a) It is blood-borne tuberculosis of vertebrae.
- b) It spares the intervertebral discs because they are avascular.
- c) It leads to paraplegia in all of the cases.
- d) It commonly leads to lordosis
- e) All of the above

124-Which of the following statements is true about leprosy:

- a) Tuberculoid leprosy is more aggressive than lepromatous leprosy.
- b) Lepra cells are epidermal cells infected by lepra bacilli
- c) Skin ulceration is a common feature of lepromatous leprosy
- d) All of the above
- e) None of the above

125-All of the following are features of chancre except:

- a) It represents the primary stage of syphilis
- b) It is a painful papule
- c) It may occur in the genitalia
- d) It may occur in extragenital sites
- e) It may be accompanied by lymph node enlargement

126-Which of the following statements is true about syphilitic affection of the tongue:

- a) Tongue lesions may develop in all stages.
- b) Syphilitic affection may be in the form of leukoplakia
- c) Syphilitic affection may be in the form of ulceration
- d) Syphilitic affection may be precancerous.
- e) All of the above

127-Which of the following statements is not true about gumma:

- a) This lesion develops in the secondary stage of syphilis
- b) It can affect the interventricular septum and cause heart block
- c) It can affect the testis and cause anterior scrotal ulcer
- d) It can affect the skull and cause saddle nose
- e) It can occur in the meninges, liver and lungs.

128-Which of the following statements is true for hepar lobatum:

- a)This is liver cirrhosis caused by chronic hepatitis
- b)This is hepatic fibrosis caused by bilharzial affection of the liver.
- c)This is a hamrtomatous lesion affecting the caudate lobe of the liver
- d)This is a pattern of syphilitic affection of the liver.
- e)This is a type of malignant liver tumors

129-Which of the following states can occur in cases of cardiovascular syphilis

- a)Heart block
- b)Aortic aneurysm
- c)Aortic incompetence
- d)Angina pectoris
- e)All of the above

130-Which of the following statements is true about tabes dorsalis:

- a)This is tuberculous lymphadenitis of the posterior cervical lymph nodes.
- b)This is deformity of the dorsal vertebrae in cases of Pott's disease
- c)This is syphilitic affection of the spinal cord which may lead to Charcot's joint
- d)This is a viral disease affecting the dorsal nerve roots.
- e)None of the above

131-Which of the following statements is not true about actinomycosis:

- a)It is anaerobic bacterial infection; commonest in the face and neck.
- b)It is a fungal infection of the scalp.
- c)The bacterial colonies appear grossly as sulphur granules
- d)Actinomycotic abscesses may occur in the liver, lungs,brain or kidneys
- e)The disease microscopically resembles Mycetoma

132-Which of the following statements is true about Madura foot:

- a)This is a fungal disease affecting the foot
- b)Spread of infection can lead to pulmonary then systemic abscesses
- c)The fungal colonies always appear white in colour
- d)The lesions develop in the soft tissue of foot without affection of bones.
- e)All of the above

133-Which of the following statements is not true about AIDS:

- a)It is caused by Epstein Barr virus
- b)The virus mainly affects the CD4+ cells
- c)Sexual transmission is the most common route of infection
- d)It may be complicated by Kaposi's sarcoma
- e)It may be complicated by brain damage

134-Which of the following statements is not true about bilharzial cystitis:

- a)Bilharzial polyps are the most common lesions
- b)It may be accompanied by bladder stone formation
- c)It may be complicated by pulmonary bilharziasis
- d)Hydronephrosis and renal failure may complicate the disease
- e)May be complicated by squamous cell carcinoma of the bladder

135-Which of the following statements is not true about bilharzial colitis:

- a)It may lead to pulmonary bilharziasis
- b)It predisposes to colonic cancer
- c)It may be complicated by dysentery
- d)Liver affection is the most serious complication
- e)It may lead to the development of a peritoneal mass.

136-Which of the following statements is true about hepatic bilharziasis :

- a)The portal tracts may show dilated vascular channels
- b)The Kupffer cells engulf bile pigment due to jaundice
- c)The hepatic framework is markedly disturbed
- d)At a late stage of the disease the liver appears markedly enlarged
- e)All of the above

137-Which of the following states is not a complication of hepatic bilharziasis:

- a)Ascites
- b)Splenomegaly
- c)Hepatic carcinoma
- d)Piles
- e)Portal vein thrombosis

138-Which of the following statements is not true about bilharzial splenomegaly:

- a)It may enlarge up to few kilograms
- b)Its substance may show fibrosiderotic nodules
- c)The liver in these cases is always enlarged
- d)The platelet count may be low
- e)The spleen may become adherent to adjacent structures

MCQ QUESTIONS KEY ANSWERS

1b 2d 3c 4e 5b 6c 7c 8c 9c 10a 11e 12a 13a 14d 15a 16d 17a 18a 19c 20e 21c 22b 23e 24e
 25b 26b 27d 28d 29b 30e 31d 32a 33c 34b 35b 36c 37a 38c 39a 40c 41b 42b 43a 44e 45a
 46e 47d 48e 49b 50d 51b 52a 53e 54^a 55a 56e 57e 58d 59c 60d 61b 62e 63a 64e 65d 66e 67a
 68d 69c 70c 71a 72d 73b 74d 75b 76c 77e 78c 79c 80b 81e 82c 83a 84d 85d 86c 87e 88a 89e
 90c 91b 92b 93e 94a 95c 96a 97a 98c 99a 100d 101a 102b 103b 104c 105c 106b 107a 108d
 109b 110a 111b 112d 113e 114b 115e 116e 117b 118e 119d 120e 121d 122e 123a 124c 125b
 126e 127a 128d 129e 130c 131b 132a 133a 134a 135b 136a 137c 138c

II) Put $\sqrt$ or x in front of each statement and explain shortly the reason

- 1-Malignant brain tumors donot spread by lymphatics ()
- 2-Multiple myeloma can lead to systemic amyloidosis ()
- 3-Dry gangrene is more serious than moist gangrene ()
- 4-Implantation cyst can develop at the site of wound healing ()
- 5-The intervertebral discs may be destroyed by metastases ()
- 6-Granulomas formed of epithelioid cells and giant cells are diagnostic of tuberculosis ()
- 7-Aortic aneurysms can cause pressure atrophy of the vertebrae & intervertebral discs ()
- 8-Benign tumors may have dangerous effects ()
- 9-Hamartomas are capsulated benign tumors that usually arise at the age of puberty ()
- 10-Irradiation of malignant melanoma is the treatment of choice ()
- 11-Pulmonary bilharziasis may be complicated by pulmonary artery aneurysm ()
- 12-Thrombocytopenia may occur in cases of bilharzial splenomegaly ()
- 13-Endotoxic shock may be associated with disseminated intravascular coagulation ()
- 14-Endothelial injury is an important cause of thrombosis ()
- 15-Use of oral contraceptives may enhance thrombosis ()
- 16-Malignant placental type tumor (choriocarcinoma) may arise in the testis ()
- 17-Intestinal gangrene is a dry type of gangrene ()
- 18-Tuberculous meningitis may lead to hydrocephalus ()
- 19-Liver amyloidosis is very commonly associated with hepatic failure ()
- 20-Hemochromatosis is associated with bronzed skin colouration ()
- 21-Hepatic steatosis may be caused by chronic alcohol intake ()
- 22-Prolonged pulmonary congestion leads to left sided heart failure ()
- 23-Tuberculoma is a malignant tumor of brain complicating tuberous sclerosis ()
- 24-Albinism is dark melanin pigmentation of the skin in Addison's disease ()
- 25-Teratoma can affect the sacrum ()
- 26-Heart failure cells are seen in the myocardium of ischemic heart
- 27-Neutrophils are most commonly seen in chronic inflammation
- 28-Fibrin is a protein formed by fibroblasts during the process of fibrosis ()
- 29-Amyloid is a fatty substance deposited in walls of blood vessels ()
- 30-Dystrophic calcification affects healthy tissues ()
- 31-Hydropid degeneration is characterized by cell dehydration ()
- 32-Leiomyosarcoma is a malignant tumor of striated muscle ()

Put ✓ or X and Give Reasons: Key answers

- 1) ✓ No lymphatics
- 2) ✓ Due to secretion of AL
- 3) X Slower putrefaction, milder toxemia
- 4) ✓ from epithelial cells trapped in the dermis during healing
- 5) X avascular
- 6) X several other types e.g sarcoidosis & tuberculoid leprosy
- 7) X not intervertebral discs which are avascular
- 8) ✓ e.g brain tumors, endocrine tumors (... mention)
- 9) X noncapsulated tumor-like malformations
- 10) X radioresistant
- 11) ✓ due to pulmonary hypertension.....
- 12) ✓ due to hypersplenism
- 13) ✓ due to activation of the clotting system
- 14) ✓ due to release of thrombotic factors & exposure of collagen to which platelets can stick 🙌
- 15) ✓ due to hypercoagulability of blood
- 16) ✓ this represents a monodermal teratoma
- 17) X It is a moist type of gangrene .The intestine is rich in tissue fluids (poor evaporation)
- 18) ✓ due to fibrous obstruction to CSF flow and damage of arachnoid villi (reduced CSF absorption)
- 19) X high hepatic reserve
- 20) ✓ due to deposition of hemosiderin & melanin
- 21) ✓ alcohol leads to steatosis by several mechanisms (mention)
- 22) X leads to right sided heart failure due to pulmonary hypertension
- 23) X Tuberculoma is a tuberculous lesion composed of caseation necrosis surrounded by gliosis
- 24) X Albinism is generalized deficiency of melanin due to deficiency of tyrosinase enzyme
- 25) ✓ Teratomas can affect the sacrum .This is one of the known sites of teratoma
- 26) X Heart failure cells are macrophages engulfing hemosiderin seen in congested lungs
- 27) X Neutrophils are most commonly seen in acute inflammation
- 28) X Fibrin is a protein derived from the plasma protein fibrinogen)
- 29) X Amyloid is a fibril protein deposited in walls of small blood vessels
- 30) X Dystrophic calcification affects dead tissues due to change of pH of dead tissue
- 31) X Hydropic degeneration is characterized by cell swelling by excess water
- 32) X Leiomyosarcoma is a malignant tumor of smooth muscle

III) Complete the following sentences

- 1-Fibrin helps movement of ----- during repair
- 2-In acute inflammation , neutrophils emigrate first followed by -----
- 3-Callus is the tissue that unites -----
- 4-Keloid is a complication of -----
- 5-Traumatic----- is a complication of healing of peripheral nerves
- 6-Nerve cells are ----- cells that heal by -----
- 7-One of the examples of bacterial granulomas is ----- ,
- 8- One of the examples of parasitic granulomas is -----
- 9-Eosinophils are commonly seen in ----- inflammation
- 10-Amyloid can be stained with -----which when examined under polarizing light gives -----
- 11-Gout is characterized by increased serum level of -----, The kidney in advanced cases may show interstitial ----- and pelvicalyceal ----- Renal lesions in gout may be complicated by -----
- 12-Coagulative necrosis is most commonly seen in cases of -----
- 13-All types of infarction are coagulative except ----- infarction is liquefactive
- 14-Abscesses caused by septic emboli are called -----
- 15-Shock induced by severe dehydration is called -----
- 16-The two most important components of a thrombus are ----- & -----
- 17-Hear failure cells are seen in the lungs in case of -----
- 18-Plasma cells showing hyalinosis are known as -----
- 19-Calcification of dead tissues is known as -----
- 20-Malignant epithelial changes without invasion of basement membrane is known as -----
- 21-A malignant tumor that spreads locally with no distant spread is known as -----
- 22-A malignant tumor arising from striated muscle cells is known as -----
- 23-A locally malignant tumor of the skin, mainly of the face is known as ----- and is also known as -----
- 24-A malignant tumor characterized by formation of cell nests is known as -----
- 25-Krukenberg tumors may be seen in the -----in case of gastric -----and are believed to be due to -----
- 26-A giant cell with peripherally arranged nuclei resembling a horse shoe is called -----, commonly seen in association with caseation in cases of -----
- 27- Epidermoid cyst is a complication of -----, while dermoid cyst is a type of mature cystic -----
- 28- Liver bilharziasis does not lead to cirrhosis due to preservation of -----
- 9-Chronic hepatitis can lead to liver cirrhosis due to -----
- 30-Matting of caseous tuberculous lymph nodes leads to formation of a swelling known as -----
- 31-A person with 47 chromosomes is known as -----, while a person with 45 chromosomes is known as -----
- 32-Loss of a segment of a chromosome is known as -----
- 33-Pathological examination of body fluids is known as -----
- 34-Gangrene of fingers, toes, nose & ears resulting from severe exposure to cold is known as -----

Complete the following sentences: Key answers:

- 1-Fibrin helps movement of fibroblasts during repair
- 2-In acute inflammation , neutrophils emigrate first followed by monocytes
- 3-Callus is the tissue that unites fractured ends of bone
- 4-Keloid is a complication of wound healing
- 5-Traumatic neuroma is a complication of healing of peripheral nerves
- 6-Nerve cells are permanent cells that heal by Gliosis
- 7-One of the examples of bacterial granulomas is tuberculosis .
- 8- One of the examples of parasitic granulomas is bilharziasis
- 9-Eosinophils are commonly seen in allergic inflammation
- 10-Amyloid can be stained with congo red which when examined under polarizing light gives apple green bipolar refringence
- 11-Gout is characterized by increased serum level of uric acid. The kidney in advanced cases may show interstitial tophi and pelvicalyceal stones. Renal lesions in gout may be complicated by renal failure.
- 12-Coagulative necrosis is most commonly seen in cases of infarction
- 13-All types of infarction are coagulative except brain infarction is liquefactive
- 14-Abscesses caused by septic emboli are called pyemic abscesses
- 15-Shock induced by severe dehydration is called hypovolaemic shock
- 16-The two most important components of a thrombus are platelets & fibrin
- 17-Hear failure cells are seen in the lungs in case of chronic venous congestion
- 18-Plasma cells showing hyalinosis are known as Russel bodies
- 19-Calcification of dead tissues is known as dystrophic calcification
- 20-Malignant epithelial changes without invasion of basement membrane is known as carcinoma in situ.
- 21-A malignant tumor that spreads locally with no distant spread is known as locally malignant tumor
- 22-A malignant tumor arising from striated muscle cells is known as rhabdomyosarcoma
- 23-A locally malignant tumor of the skin, mainly of the face is known as basal cell carcinoma and is also known as rodent ulcer.
- 24-A malignant tumor characterized by formation of cell nests is known as squamous cell Carcinoma
- 25-Krukenberg tumors may be seen in the ovaries in case of gastric carcinoma and are believed to be due to transcoelomic spread
- 26-A giant cell with peripherally arranged nuclei resembling a horse shoe is called Langan's giant cell , commonly seen in association with caseation in cases of Tuberculosis
- 27- Epidermoid cyst is a complication of wound healing , while dermoid cyst is a type of mature cystic teratoma
- 28- Liver bilharziasis does not lead to cirrhosis due to preservation of the hepatic framework.
- 29-Chronic hepatitis can lead to liver cirrhosis due to disturbance of the hepatic framework
- 30-Matting of caseous tuberculous lymph nodes leads to formation of a swelling known as cold abscess
- 31-A person with 47 chromosomes is known as trisomy, while a person with 45 chromosomes is known as monosomy
- 32-Loss of a segment of a chromosome is known as deletion
- 33-Pathological examination of body fluids is known as cytology
- 34-Gangrene of fingers, toes, nose & ears resulting from severe exposure to cold is known as frostbite

Cross match : Key answers:

- | | |
|-------------------|---|
| 1-Eosinophils | 1-Are commonly seen in granulomas |
| 2-Neutrophils | 2-Can give rise to macrophages |
| 3-Blood monocytes | 3-Are commonly seen in allergic inflammation |
| 4-Giant cells | 4-Secret lymphokines |
| 5-T lymphocytes | 5-Are commonly seen in acute suppurative inflammation |

(1→3, 2→5, 3→2, 4→1, 5→4)

- | | |
|--------------------|--|
| 1-Papilloma | 1-Is a malignant tumor that can arise in the colon |
| 2-Adenocarcinoma | 2-Is a benign tumor of surface epithelium |
| 3-Cystadenoma | 3-Is a locally malignant tumor of bone |
| 4-Giant cell tumor | 4-Is a tumor-like developmental malformation |
| 5-Hamartoma | 5-Is a benign glandular tumor; commonly arising in the ovary |

(1→2, 2→1, 3→5, 4→3, 5→4)

- | | |
|-------------------|---|
| 1-Moniliasis | 1-Is a type of acute fibrinous inflammation |
| 2-Cold abscess | 2-Is an acute diffuse suppurative inflammation |
| 3-Actinomyces | 3-Is a fungal infection that may cause oral thrush |
| 4-Cellulitis | 4-Is anaerobic bacterial infection causing abscesses & sinuses |
| 5-Lobar pneumonia | 5-A collection of caseous material, commonly within lymph nodes |

(1→3, 2→5, 3→4, 4→2, 5→1)

- | | |
|------------------|---|
| 1-Cell nests | 1-Are microscopic structures, seen in squamous cell carcinoma |
| 2-Rodent ulcer | 2-Is a benign tumor of lymphatic vessels |
| 3-Cystic hygroma | 3-Is a mature cystic teratoma |
| 4-Dermoid cyst | 4-Is a locally malignant tumor of skin |
| 5-Macroglossia | 5- May be caused by cavernous hemangioma |

(1→1, 2→4, 3→2, 4→3, 5→5)

- | | |
|-------------------|--|
| 1-Callus | 1-Can be stained by Congo red |
| 2-Pott's disease | 2-Is programmed cell death |
| 3-Hemochromatosis | 3-Is the tissue uniting fractured ends of bone |
| 4-Apoptosis | 4-Is also called bronzed diabetes |
| 5-Amyloidosis | 5- Is tuberculous affection of the vertebrae |

(1→3, 2→5, 3→4, 4→2, 5→1)

IV) Cross match the following statements

- 1-Eosinophils
- 2-Neutrophils
- 3-Blood monocytes
- 4-Giant cells
- 5-T lymphocytes

- 1-Are commonly seen in granulomas
- 2-Can give rise to macrophages
- 3-Are commonly seen in allergic inflammation
- 4-Secret lymphokines
- 5-Are commonly seen in acute suppurative inflammation

- 1-Papilloma
- 2-Adenocarcinoma
- 3-Cystadenoma
- 4-Giant cell tumor
- 5-Hamartoma

- 1-Is a malignant tumor that can arise in the colon
- 2-Is a benign tumor of surface epithelium
- 3-Is a locally malignant tumor of bone
- 4-Is a tumor-like developmental malformation
- 5-Is a benign glandular tumor; commonly arising in the ovary

- 1-Moniliasis
- 2-Cold abscess
- 3-Actinomycosis
- 4-Cellulitis
- 5-Lobar pneumonia

- 1-Is a type of acute fibrinous inflammation
- 2-Is an acute diffuse suppurative inflammation
- 3-Is a fungal infection that may cause oral thrush
- 4-Is anaerobic bacterial infection causing abscesses & sinuses
- 5-A collection of caseous material, commonly within lymph nodes

- 1-Cell nests
- 2-Rodent ulcer
- 3-Cystic hygroma
- 4-Dermoid cyst
- 5-Macroglossia

- 1-Are microscopic structures, seen in squamous cell carcinoma
- 2-is a benign tumor of lymphatic vessels
- 3-Is a mature cystic teratoma
- 4-Is a locally malignant tumor of skin
- 5- May be caused by cavernous hemangioma

- 1-Callus
- 2-Pott's disease
- 3-Hemochromatosis
- 4-Apoptosis
- 5-Amyloidosis

- 1-Can be stained by Congo red
- 2-is programmed cell death
- 3-Is the tissue uniting fractured ends of bone
- 4-Is also called bronzed diabetes
- 5- Is tuberculous affection of the vertebrae

V) Enumerate

- 1-Functions of fibrin in acute inflammation
- 2-Types of granuloma
- 3-Complications of wound healing
- 4-Causes of imperfect healing of bone
- 5-Complications of chronic fibrocaceous pulmonary tuberculosis
- 6-Complications of bilharzial cystitis
- 7-Causes of death in malignant tumors
- 8-Causes of lymphatic oedema
- 9-Causes of generalized oedema
- 10-Types of granuloma
- 11-Types & functions of chronic inflammatory cells
- 12-Three street drugs and their effects
- 13-Fate and complications of abscess
- 14-Embryonic tumors
- 15-Hamartomas
- 16-Types of papilloma
- 17-Types of pigmented tumors
- 18-Effects of vitamin D deficiency on bones in infants
- 19-Radiation effects on different tissues
- 20-Types of tumors according to their radiosensitivity
- 21-Complications of hydatid cyst
- 22-Methods of transmission of HIV
- 23-Characters of CSF in case of tuberculous meningitis
- 24-Types of suppurative and Nonsuppurative inflammation
- 25-Types and causes of ischemia

VI) Write a note on

- 1-Urothelial (epithelial) changes of the bladder in case of bilharzial cystitis
- 2-Functions of inflammatory fluid exudate
- 3-Macrophages : Origin and functions
- 4-Phagocytosis
- 5-Locally malignant tumors
- 6-Carcinoma in situ
- 7-Hematogenous spread of malignant tumors
- 8-lymphatic spread of malignant tumors
- 9-Mechanism of spread of malignant tumors
- 10-Phlebothrombosis
- 11-Thrombophlebitis
- 12-Fate and complications of thrombosis
- 13-Pulmonary embolism
- 14-Lung infarction
- 15-Senile gangrene
- 16-Madura foot
- 17-Cervicofacial Actinomycosis
- 18-Bilharzial hepatic lesions
- 19-Renal amyloidosis
- 20-Dystrophic calcification
- 21-Hepatic steatosis
- 22-Healing of wounds by secondary union
- 23-Mechanism of healing of peripheral nerves
- 24-Nevus
- 25-Benign tumors of bone and cartilage
- 26-Metaplasia
- 27-Hyperplasia
- 28-Atrophy
- 29-Hypertrophy
- 30-Beri-beri
- 31-Bilharzial splenomegaly
- 32-Colonic bilharzial lesions
- 33- Pot's disease
- 34-Tuberculous arthritis
- 35-Tuberculoma
- 37-Tuberculous peritonitis
- 38-Ghon's focus: Definition, sites, gross and microscopic appearance, fate & complications
- 39-Intestinal tuberculous ulcers
- 40-Tubercle
- 41-Septicemia
- 42-Causes of oedema
- 43-Hydronic degeneration
- 44-Apoptosis
- 45-Cellular changes in necrosis
- 46-Pseudomembranous inflammation
- 47-Catarrhal inflammation
- 48-Cardiac thrombi

- 49-Hemochromatosis
- 50-Renal amyloidosis
- 51-Causes and mechanism of cell injury
- 52-Pathology of serofibrinous inflammation & mechanism of its healing
- 53-Granulation tissue
- 54-Callus
- 55-Mechanism of fibrosis
- 56-Carbuncle
- 57-Chemotaxis
- 58-Mechanism of pus formation
- 59-Fate of acute inflammation
- 60-Congenital syphilis

VII) COMPARE

- 1-Abscess & cellulitis
- 2-Acute and chronic inflammation
- 3-Thrombus and clot
- 4-Gross and microscopic features of carcinoma and sarcoma
- 5-Basal cell carcinoma and squamous cell carcinoma
- 6-Primary and secondary tuberculosis
- 7-Microscopic features of benign and malignant tumors
- 8-Dry & moist gangrene
- 9-Transudate and exudate

CASES: Key Points:

A) A female patient 60 years old suffered from repeated attacks of hematemesis, marked loss of weight and abdominal distension. She was investigated and proved to have a gastric large irregular ulcer with necrotic floor. The abdominal cavity showed ascites which on tapping appeared hemorrhagic. Both ovaries were enlarged.

- 1-What is the possible nature of the gastric ulcer?
- 2-How would you explain loss of weight in this condition?
- 3-What are the possible causes of hemorrhagic ascites & bilateral ovarian enlargement in this lady?
- 4-If the gastric ulcer is biopsied, what are the possible findings?
- 5-What possible lesions may be detected in the regional lymph nodes and liver of this lady?

- 1-Malignant ulcer
- 2-Cachexia (describe)
- 3-Both are due to Transcoelomic spread
- 4-Glandular carcinoma (adenocarcinoma, mucin secreting carcinoma .. etc : Describe)
- 5-Metastases

B) A male patient 45 years old with long history of chronic fibrocaceous pulmonary tuberculosis, recently developed nephrotic syndrome. Renal biopsy revealed amyloidosis.

- 1-Is there any possible relation between pulmonary tuberculosis and renal amyloidosis?
- 2-What type of amyloid protein is expected in this condition?
- 3-What other complications may result from the pulmonary disease?

- 1-Yes. Tuberculosis predisposes to systemic amyloidosis
- 2-AA protein
- 3-Enumerate complications of chronic fibrocaceous pulmonary tuberculosis

C) A farmer aged 39 years had repeated attacks of hematemesis. Investigations revealed oesophageal varices splenomegaly and shrunken liver showing portal fibrosis without cirrhosis. Blood picture shows pancytopenia

- 1-What is the possible diagnosis?
- 2-What is the mechanism of oesophageal varices?
- 3-How liver biopsy can support the diagnosis in this condition?
- 4-If the colon is examined, what lesions may be found?
- 5-What is the cause of pancytopenia?

- 1-Bilharzial hepatic fibrosis complicated by oesophageal varices and splenomegaly
- 2-Portal hypertension with opening of portosystemic collaterals
- 3-Describe the microscopic features of liver bilharzial lesions
- 4-Colonic bilharzial lesions may be detected (describe)
- 5-Hypersplenism

D) A male patient aged 55 years had history of left sided heart failure complicated by right sided heart failure. He recently developed severe chest pain and proved to have lung infarction

- 1-What is the mechanism of lung infarction in this condition?
- 2-Is the rest of lung normal? Describe
- 3-Describe the gross and microscopic features of lung infarction

VIII) CASES

A) A female patient 60 years old suffered from repeated attacks of hematemesis, marked loss of weight and abdominal distension. She was investigated and proved to have a gastric large irregular ulcer with necrotic floor. The abdominal cavity showed ascites which on tapping appeared hemorrhagic. Both ovaries were enlarged.

- 1-What is the possible nature of the gastric ulcer?
- 2-How would you explain loss of weight in this condition
- 3-what are the possible causes of hemorrhagic ascites & bilateral ovarian enlargement in this lady.
- 4-If the gastric ulcer is biopsied, what are the possible findings?
- 5-What possible lesions may be detected in the regional lymph nodes and liver of this lady

B) A male patient 45 years old with long history of chronic fibrocaceous pulmonary tuberculosis, recently developed nephrotic syndrome. Renal biopsy revealed amyloidosis.

- 1-Is there any possible relation between pulmonary tuberculosis and renal amyloidosis ?
- 2-What type of amyloid protein is expected in this condition?
- 3-What other complications may result from the pulmonary disease?

C) A farmer aged 39 years had repeated attacks of hematemesis. Investigations revealed oesophageal varices splenomegaly and shrunken liver showing portal fibrosis without cirrhosis. Blood picture shows pancytopenia

- 1-What is the possible diagnosis
- 2-What is the mechanism of oesophageal varices
- 3-How liver biopsy can support the diagnosis in this condition?
- 4-If the colon is examined, what lesions may be found ?
- 5-What is the cause of pancytopenia

D) A male patient aged 55 years had history of left sided heart failure complicated by right sided heart failure. He recently developed severe chest pain and proved to have lung infarction

- 1-What is the mechanism of lung infarction in this condition
- 2-Is the rest of lung normal? Describe
- 3-Describe the gross and microscopic features of lung infarction

E) A male patient, 42 years old, had repeated attacks of bleeding per rectum. He was investigated and found to have few rectosigmoid polyps.

- 1-Give 2 different pathological possibilities of these polyps
- 2-Mention one microscopic feature that can differentiate between the 2 possibilities
- 3-Does any of these polyps have a precancerous potential?

- 1-The lung has double blood supply (pulmonary & bronchial) .Both should be affected to get infarction:
 - a)Pulmonary embolism due to thrombosis (common in case of heart failure) → occlusion of pulmonary artery
 - b)Low cardiac out put due to left sided heart failure→ low bronchial blood flow
- 2-No . Congested (describe picture of lung congestion)
- 3-Describe

E) A male patient , 42 years old , had repeated attacks of bleeding per rectum. He was investigated and found to have few rectosigmoid polyps.

- 1-Give 2 different pathological possibilities of these polyps
- 2-Mention one microscopic feature that can differentiated between the 2 possibilities
- 3-Does any of these polyps have a precancerous potential?

- 1-Bilharzial polyp & Adenomatous polyp (mucous cell papilloma)
- 2-Bilharzia ova exist only in bilharzial polyp
- 3-Adenomatous polyp (& not bilharzial polyp) is precancerous and can change into adenocarcinoma